



يُحظر تصوير أو تداول هذه الوثيقة، وسيتم اتخاذ الإجراءات القانونية اللازمة ضد من يخالف ذلك

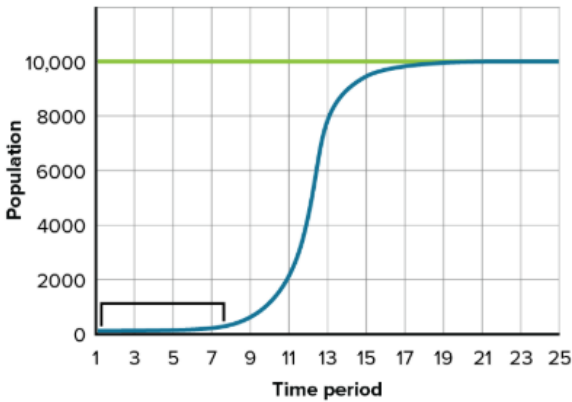
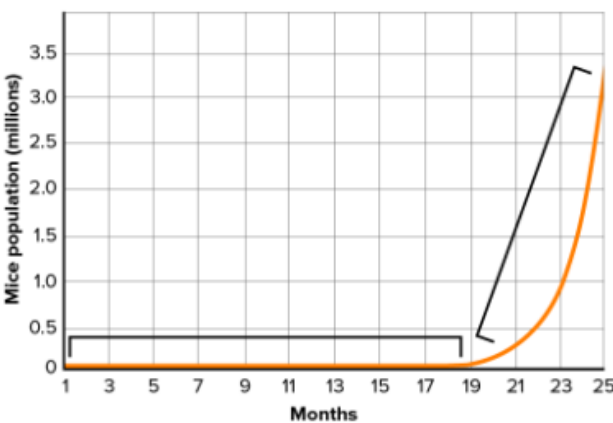
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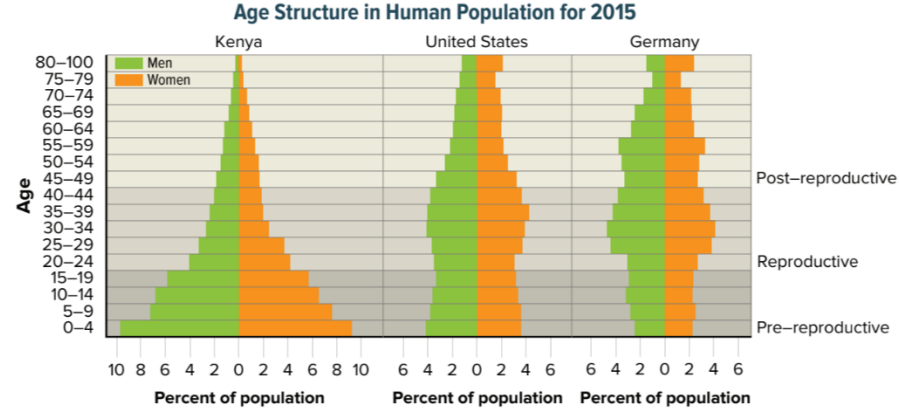
Grade 11 (M) General Biology EOT3 Practice Questions (PDF)


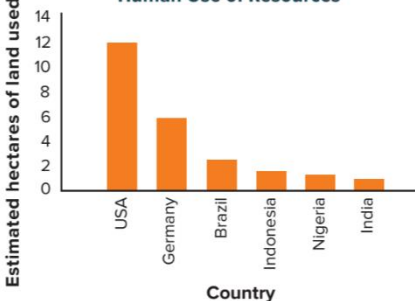
Note: This course is in the G12 Inspire Biology book on Al Diwan for the academic year 24-25

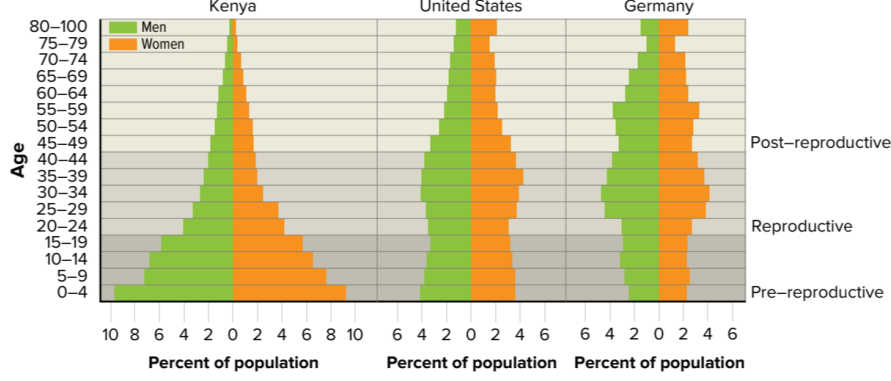

(Please refer to the page numbers displayed at the top of each page in the book for accurate referencing)

Question No.	Example	Page in G12 General Inspire Textbook
MCQ		
1	<p>Sort the following factors as either density dependent or density independent.</p> <div> <div>Density-independent</div> <div>Density-dependent</div> <div> drought flooding hurricane predation relationships symbiotic relationships disease competition temperature </div> </div>	
2	<p>Why is disease considered a density-dependent environmental factor?</p> <p> <input type="radio"/> Population density affects amount of contact. <input type="radio"/> Disease spreads easily in a low-density population. <input type="radio"/> Disease won't spread in high-density populations. <input type="radio"/> Disease may be influenced by weather. </p>	

3	<p>The type of growth represented by this graph is Select Choice ▾ population growth.</p> 	
4	<p>What type of growth is represented by the J-shaped curve shown below?</p>  <p> <input type="radio"/> linear <input type="radio"/> random <input type="radio"/> exponential <input type="radio"/> logistic </p>	
5	<p>population change from high birth rates and death rates to low birth rates and death rates ← → demographic transition</p>	



6	<h3>Trends in Human Population Growth</h3> <p>The graph in Figure 12 on the previous page is somewhat deceptive. Population trends can be altered by events such as disease and war. Figure 13 (next page) shows a few historical events that have changed population trends. Figure 12 could also easily be misinterpreted because human population growth is not the same in all countries. However, population growth trends are often similar in countries that have similar economies.</p> <p>For example, one trend that has developed during the previous century is a change in the population growth rate in industrially developed countries such as the United States. An industrially developed country is advanced in industrial and technological capabilities and has a population with a high standard of living. Criteria for determining developed countries include average national income, individual average health and education, and national export and import of goods.</p> <p>In its early history, the United States had a high birthrate and a high death rate. It was not uncommon for people to have large families and for individuals to die by their early forties. Many children also died before reaching adulthood. Presently, the birthrate in the United States has decreased dramatically and the life expectancy is greater than seventy years. This change in a population from high birth and death rates to low birth and death rates is called a demographic transition.</p>	172
7	<h3>Age Structure in Human Population for 2015</h3>  <p>Figure 14 The relative numbers of individuals in pre-reproductive, reproductive, and post-reproductive years are shown for three representative countries.</p>	175
8	<p>Get It? Compare and contrast the age structures of the countries shown in Figure 14.</p>	175
9	<p>the study of human population, size, density, distribution, movement, and birth and death rates</p> <p style="text-align: center;">↔ demography</p>	
10	<h3>Human Population Growth</h3> <p>The study of human population size, density, distribution, movement, and birth and death rates is demography (de MAH gra fee).</p>	170

11	Match each term with its correct definition.																
	Column A (Term)	Column B (Definition)															
	1. Natality	Number of individuals entering a population															
	2. Mortality	Number of individuals born in a population															
	3. Immigration	Number of individuals leaving a population															
	4. Emigration	Number of individuals dying in a population															
12	The movement of individuals out of a population is called: A – Natality B – Immigration C – Emigration D – Mortality																
13	Discuss how technological advances have affected human population growth.																
14	<div> Get It? Explain the factors that have contributed to an increase in the survival rate of the human population.</div>		171														
15	Compare the population growth rate in industrially developed countries to that in developing countries.																
16	<p>Another important factor in keeping the human population at or below the carrying capacity is the amount of resources from the biosphere that are used by each person. Currently, individuals in industrially developed countries use far more resources than those individuals in developing countries, as shown in Figure 15. This graph shows the estimated amount of land required to support a person through his or her life, including land used for production of food, forest products and housing, and the additional forest land required to absorb the carbon dioxide produced by the burning of fossil fuels. Countries such as India are becoming more industrialized, and they have a high growth rate. These countries are adding more people and are increasing their use of resources. At some point, the land needed to sustain each person on Earth might exceed the amount of land that is available. At that time the human population will likely have exceeded Earth’s carrying capacity.</p> <div><p>Human Use of Resources</p><table><thead><tr><th>Country</th><th>Estimated hectares of land used</th></tr></thead><tbody><tr><td>USA</td><td>12</td></tr><tr><td>Germany</td><td>6</td></tr><tr><td>Brazil</td><td>2.5</td></tr><tr><td>Indonesia</td><td>1.5</td></tr><tr><td>Nigeria</td><td>1</td></tr><tr><td>India</td><td>0.5</td></tr></tbody></table><p>Figure 15 The amount of resources used per person varies around the world.</p></div>		Country	Estimated hectares of land used	USA	12	Germany	6	Brazil	2.5	Indonesia	1.5	Nigeria	1	India	0.5	176
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17	The number of organisms per unit of living area is called _____.																

18	1. Compare and contrast spatial distribution, population density, and population growth rate.	169
19	<p style="text-align: center;">Age Structure in Human Population for 2015</p>  <p>Figure 14 The relative numbers of individuals in pre-reproductive, reproductive, and post-reproductive years are shown for three representative countries.</p>	175
20	<p> Get It?</p> <p>Compare and contrast the age structures of the countries shown in Figure 14.</p>	175
21	<p>Earth's carrying capacity for humans</p> <p>Calculating population growth rates is not just a mathematical exercise. Scientists are concerned about the human population reaching or exceeding the carrying capacity. As you learned in Lesson 1, all populations are limited by the carrying capacity of their ecosystems, and the human population is no exception. Many scientists suggest that human population growth needs to be reduced. In many countries, voluntary population control is occurring through family planning. Unfortunately, if the human population continues to grow—as most populations do— and areas become overcrowded, disease and starvation will occur. However, technology has allowed humans to increase the carrying capacity of Earth, at least temporarily. It might be possible for technology and planning to keep the human population at or below Earth's carrying capacity.</p>	175
22	3. Assess the consequences of exponential population growth of any population.	176
23	When the birthrates and death rates of a country are equal, the country is experiencing _____.	



24	<p>Which of the following is true of a population with a growth rate of zero with no emigration or immigration?</p> <p><input type="radio"/> The birthrate exceeds the death rate.</p> <p><input type="radio"/> The birthrate equals the death rate.</p> <p><input type="radio"/> The birthrate is less than the death rate.</p>	
25	<p>What might be happening when a population stops increasing and begins decreasing? Select all that apply.</p> <p><input type="checkbox"/> Immigration exceeds emigration.</p> <p><input type="checkbox"/> The number of births is less than the number of deaths.</p> <p><input type="checkbox"/> The number of births exceeds the number of deaths.</p> <p><input type="checkbox"/> Emigration exceeds immigration.</p>	
26	<p>Twenty gray squirrels moving out of a forest into a new ecosystem is an example of _____.</p>	
27	<p>1. Describe the change in human population growth over time.</p>	176
28	<p>4. Summarize why the human population began to grow exponentially in the Modern Age.</p>	176
29	<p>Zero population growth</p> <p>Another trend that populations can experience is zero population growth. Zero population growth (ZPG) occurs when births plus immigration equals deaths plus emigration for a generation. This will mean that the population has stopped growing, because births and deaths occur at the same rate. Once the world population reaches ZPG, the age structure eventually should be more balanced with numbers at pre-reproductive, reproductive, and post-reproductive ages being approximately equal.</p> <p>Zero population growth is a goal of many countries and societies. Many population planners and environmentalists believe that ZPG will contribute to the sustainability of Earth's ecosystems.</p>	174
30	<p>Zero population growth leads to an unbalanced age structure in the population.</p> <p>A – True B – False</p>	

31	 Get It? Describe two reasons why a species might not be able to expand its range.	164
32	A species may fail to thrive in a new environment if the _____ factors, such as temperature or soil type, are not suitable for its survival.	
33	 Get It? Compare the population growth rates in the United States and the United Kingdom, which has a birthrate of 12 (per 1000), death rate 8.8 (per 1000), and migration rate 2.5 (per 1000).	172
34	During one year, the birthrate in a country is 28 births per 1000 people, and the death rate is six deaths per 1000 people. What is the population growth rate?	
35	The pattern of spacing of a population within an area is called _____.	
36	1. Compare and contrast spatial distribution, population density, and population growth rate.	169
37	<p>Human population growth rate</p> <p>Although the human population is still growing, the rate of its growth has slowed. Figure 12 shows the percent increase in human population from the late 1940s through 2016. The graph also includes the projected population increase through 2050.</p> <p>Notice the sharp dip in human population growth in the 1960s. This was due primarily to a famine in China in which about 60 million people died. The graph also shows that human population growth reached its peak at over 2.2 percent in 1963. By 2016, the percent increase in human population growth had dropped to less than 1.2 percent.</p> <p>Population models predict the overall population growth rate to be below 0.6 percent by 2050. The decline in human population growth is due primarily to diseases such as AIDS and voluntary population control.</p>	171



38	The projected decline in human population growth by 2050 is mainly due to improved food supply and better shelter. A – True B – False	
39	Population-Limiting Factors Limiting factors are biotic or abiotic factors that keep a population from continuing to increase indefinitely. Decreasing a limiting factor, such as the available food supply, often changes the number of individuals that are able to survive in a given area. In other words, if the food supply increases a larger population might result, and if the food supply decreases a smaller population would likely result.	164
40	2. Summarize the concepts of carrying capacity and limiting factors, and their effects on reproductive patterns.	169
41	Reducing individual resource use can help keep the human population within Earth's carrying capacity. A – True B – False	
42	Which of the following human activities would most likely help maintain Earth's carrying capacity? A – Overusing non-renewable energy resources B – Practicing sustainable agriculture and water use C – Increasing global meat consumption D – Replacing forests with urban areas	
43	Populations can be limited by the results of human interference. For example, over the last 100 years, building dams and other human activities on the Colorado River have significantly reduced the river's water flow and changed its temperature. In addition, the introduction of nonnative fish species altered the river's biotic factors. Because of the changes in the river, the number of small fish called humpback chub was reduced. During the 1960s, the number of humpback chub dropped so low that they were in danger of disappearing from the Colorado River altogether. Air, land, and water pollution are the result of human activities that also can limit populations. Pollution reduces the available resources by making some of the resources toxic.	165
44	Pollution can limit the size of a population by reducing the _____ needed for survival, such as clean air, water, and food.	
45	Compare and contrast the reproductive strategy of an <i>r</i> -strategy organism and a <i>k</i> -strategy organism.	

46	<p>Place each organism with the correct reproductive strategy.</p> <table><tr><th>r-strategy</th><th>k-strategy</th></tr><tr><td></td><td></td></tr></table> <table><tr><td>elephants</td><td>primates</td><td>locusts</td><td>horses</td><td>crickets</td><td>mice</td></tr></table>	r-strategy	k-strategy			elephants	primates	locusts	horses	crickets	mice	
r-strategy	k-strategy											
elephants	primates	locusts	horses	crickets	mice							
47	Differentiate between density-dependent and density-independent factors in terms of how they affect population growth.											
48	Contrast density-dependent and density-independent factors. Provide examples with your answer.											
49	<p>Carrying capacity Ecosystems have limits to the numbers of organisms and populations they can support. The maximum number of individuals in a species that an environment can support for the long term is the carrying capacity. You will notice in Figure 8, on the previous page, that logistic growth levels off at the line on the graph identified as the carrying capacity.</p> <p>Carrying capacity is limited by such factors as the availability of living and nonliving resources and from such challenges as predation, competition, and disease. Organisms would have the capacity to produce populations of great size were it not for the fact that environments and resources are finite. This fundamental tension affects the abundance (number of individuals) of species in any given ecosystem. When populations develop in an environment with plentiful resources, there are more births than deaths. The population soon reaches or passes the carrying capacity. As a population nears the carrying capacity, resources become limited.</p> <p>If a population exceeds the carrying capacity, deaths outnumber births because adequate resources are not available to support all of the individuals. The population then falls below the carrying capacity as individuals die. The concept of carrying capacity is used to explain why many populations tend to stabilize.</p>	168										
50	<p>2. Summarize the concepts of carrying capacity and limiting factors, and their effects on reproductive patterns.</p>	169										